A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12G1/02 C12H1/00 C12N1/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12G - C12H C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, FSTA, BIOSIS, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 607 854 A (PRAHL CLAUS ET AL) 4 March 1997 (1997-03-04) cited in the application column 4, line 15 - line 60; examples 1,2 -----	1-62
A	US 5 077 060 A (PRAHL CLAUS) 31 December 1991 (1991-12-31) column 3, line 12 - column 4, line 35; claims; example 7 -----	1-62
A	US 5 460 837 A (D AMICO NICOLA ET AL) 24 October 1995 (1995-10-24) column 2, line 18 - line 40; claims 1-10; examples 1,2 -----	1-62
A	EP 0 327 380 A (UNISEARCH LTD) 9 August 1989 (1989-08-09) example 2; table 2 -----	1-62

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
27 April 2005	31. 05. 2005

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Baminger, U

Form PCT/ISA/210 (second sheet) (January 2004)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NIELSEN JAN CLAIR ET AL: "Malolactic fermentation in wine by direct inoculation with freeze-dried Leuconostoc oenos cultures" AMERICAN JOURNAL OF ENOLOGY AND VITICULTURE, vol. 47, no. 1, 1996, pages 42-48, XP009023863 ISSN: 0002-9254 the whole document	1-62
A	NIELSEN J C ET AL: "Control of flavor development in wine during and after malolactic fermentation by Oenococcus oeni." APPLIED AND ENVIRONMENTAL MICROBIOLOGY 65 (2) 740-745 1999 RESEARCH & DEV., CHR. HANSEN A/S, DK-2970 HORSHOLM, DENMARK. TEL. 45 45747474. FAX 45 45748994. E-MAIL JCN.DK(A)CHR-HANSEN.COM, February 1999 (1999-02), XP002266818 page 741, column 1, last paragraph page 743, column 2, last paragraph - page 744, column 1, paragraph 1 page 740, column 1 - column 2	1-62
A	VILJAKAINEN S K ET AL: "The use of malolactic Oenococcus oeni (ATCC 39401) for deacidification of media containing glucose, malic acid and citric acid" EUROPEAN FOOD RESEARCH AND TECHNOLOGY, SPRINGER VERLAG, HEIDELBERG, DE, vol. 211, no. 6, 2000, pages 438-442, XP002266819 ISSN: 1438-2377 the whole document	1-62
A	CARRIE C ET AL: "COMPARISON OF COMMERICAL PREPARATIONS OF LACTIC ACID BACTERIA FOR DIRECT INOCULATION, FOR CONTROL OF MALOLACTIC FERMENTATION OF MERLOT WINES COMPARISON DE PREPARATIONS COMMERCIALES DE BACTERIES LACTIQUES A ENSEMENCEMENT DIRECT, EN VUE DE GERER LA FERMENTATION MALOLACTIQUE DU MERLOT" REVUE DES OENOLOGUES ET DES TECHNIQUES VITIVINICOLES ET OENOLOGIQUES, UNION NATIONALE DES OENOLOGUES FRANCE BOURGOGNE-PUBLICATIONS,, FR, no. 103, 2002, pages 16-18, XP009023946 ISSN: 0760-9868 page 17, column 2, last paragraph - page 18, column 2, paragraph 2; table 3	1-62

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	REGUANT C ET AL: "Influence of phenolic compounds on the physiology of Oenococcus oeni from wine." JOURNAL OF APPLIED MICROBIOLOGY 88 (6) 1065-1071 2000 CORRESPONDENCE (REPRINT) ADDRESS, A. BORDONS, DEP. DE BIOQUIMICA I BIOTEC., UNIV. ROVIRA I VIRGILI, E-43005 TARRAGONA, CATALONIA, SPAIN. E-MAIL ABPD(A)ASTOR.URV.ES, 2000, XP001157128 page 1070, column 1, paragraph 2 - paragraph 3; table 1	1-62
X	US 4 562 077 A (KING ET AL) 31 December 1985 (1985-12-31)	63-75
Y	column 3, line 33 - column 4, line 45; claim 1	76-104
Y	US 6 284 518 B1 (HENICK-KLING THOMAS ET AL) 4 September 2001 (2001-09-04) claims	76-104
Y	KRIEGER S A: "THE USE OF ACTIVE DRY MALOLACTIC STARTER CULTURES" AUSTRALIAN AND NEW ZEALAND WINE INDUSTRY JOURNAL, AUSTRALIAN INDUSTRIAL PUBLISHERS, ADELAIDE, AU, vol. 8, no. 1, February 1993 (1993-02), pages 56-62, XP009023867 ISSN: 0819-2421 page 57, column 2; figure 2	76-104
Y	JOYEUX A ET AL: "COMPARAISON DE DIVERSES PREPARATIONS INDUSTRIELLES DE BACTERIES LACTIQUES REACTIVEES POUR STIMULER LA FERMENTATION MALOLACTIQUE COMPARISON OF VARIOUS REACTIVATED INDUSTRIAL PREPARATIONS OF LACTIC ACID BACTERIA FOR STIMULATION OF MALOLACTIC FERMENTATION" CONNAISSANCE DE LA VIGNE ET DU VIN, VIGNE ET VIN PUBLICATIONS INTERNATIONALES, BORDEAUX, FR, vol. 19, no. 3, 1985, pages 149-159, XP009023986 ISSN: 0010-597X page 152, paragraph 2	76-104
T	BELITZ, H.-D. AND GROSCH, W.: "Lehrbuch der Lebensmittelchemie" 1992, SPRINGER , XP002326417 page 767; table 18.35	

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PILATTE E ET AL: "Development of a specific activator for malolactic bacteria." REVUE DES OENOLOGUES ET DES TECHNIQUES VITIVINICOLES ET OENOLOGIQUES, 1999, XP009046219 CHR. HANSEN FRANCE, 91 ARPAJON, F page 31, column 3 - page 32 -----	76-104

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK2004/000455

Box II. Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-62

An isolated purified microorganism that has a capability of fermenting malic acid to lactic acid and a limited capability of degrading citric acid as well as having certain survival rates when added DIRECTLY to a specified fermented sterile fruit juice in a frozen or freeze-dried form.
The production of such an organism, a concentrate and a dried preparation of the organism as well as its use in inducing malo-lactic fermentation in wine and the preferential degradation of malic acid over citric acid.

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2. claims: 63-104

An activation solution comprising a nitrogen source, a certain concentration of sugar and a microbial organism capable of fermenting at least one fermentable compound. A dry concentrate thereof and a method in which this concentrate is used to induce a fermentation in a liquid composition comprising at least water and the fermentable compound.

INTERNATIONAL SEARCH REPORT

ormation on patent family members

Interr[illegible]al Application No
PCT/DK2004/000455

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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